

PHS

PHS
NO. 1071
F-16
1968

F-16

1968

Health Mobilization Series

F-16

CHECK LIST for developing a

P ackaged

D isaster

H ospital

✓ READINESS PLAN

HEALTH SERVICES
NAT'L CENTER FOR CHRONIC
DISEASE CONTROL - P.H.S.

DE 1968

WALSH BLDG. RM. 406
1101 N. FENEFAX DR.
WASHINGTON, VIRGINIA

THIS ITEM DOES NOT
CIRCULATE

U S DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE
Public Health Service

HEALTH SERVICES
NAT'L CENTER FOR CHRONIC
DISEASE CONTROL - P.H.S.

DE 1968

WALSH BLDG. RM. 406
1101 N. FENEFAX DR.
WASHINGTON, VIRGINIA

U.S. DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE
Public Health Service
Division of Health Mobilization
Revised 1968

Public Health Service Publication No. 1071-F-16

For sale by the Superintendent of Documents, U.S. Government Printing Office
Washington, D.C., 20402 - Price 20 cents

CHECK LIST FOR DEVELOPING A PACKAGED DISASTER HOSPITAL READINESS PLAN

I. Purpose

This check list is designed to help hospitals and cooperative community emergency planners develop a plan for the utilization of a Public Health Service Packaged Disaster Hospital (PDH). Following a brief description of the 200-bed hospital and its intended uses are questions requiring "yes" or "no" answers. The questionnaire presents an outline of actions which the community hospital must take to make use of the unit in time of disaster. Additional details on PDH planning are included in the attachments.

Complete information on the PDH and its functional sections will be found in the Health Mobilization Series publications listed in Attachment 5-State health department personnel are usually available for assistance in planning the use of the PDH.

The Packaged Disaster Hospitals strategically placed throughout the United States comprise a large part of the medical care supplies and equipment that will be available to the population surviving a nuclear attack. They also represent a potentially valuable supplement to local resources in case of a major natural disaster. Plans for their use, however, must be made before an emergency arises.

II. What is the PDH?

The PDH is a unit of enough medical supplies and equipment--cots, bedding and pharmaceuticals--to establish a complete 200-bed hospital. These units, owned by the Federal Government and packed for long-term storage, are allocated to selected community hospitals across the country to augment their patient care competency in time of major disaster. The PDH contains an estimated 30-day supply of expendable medical items plus the necessary nonexpendable equipment for general medical and surgical care.

III. Content of the PDH

The PDH contains supplies and equipment for the following functional hospital sections: receiving and sorting, wards, operating rooms, X-ray, clinical laboratory, pharmacy, central sterile supply, and general stores. It also includes:

1. A supply of medical and administrative records
2. Dental equipment for emergency dental repair and oral surgery
3. Generators to provide auxiliary power in case electrical power is interrupted
4. A 1500-gallon water tank with pumping unit for emergency water supply.

IV. Utilization of the PDH

Current preparedness programming requires the PDH's to be operationally affiliated with community hospitals.

There are two basic intended uses for the PDH. It provides a balanced supply and equipment basis for:

1. Expanding the hospital to which it has been assigned
2. Establishing a separate 200-bed hospital in a preselected suitable building--such as a school, recreation center, armory, or church--to be operated as an auxiliary facility of the parent hospital.

Each hospital to which a PDH has been allocated should prepare and organize, with the aid of other community groups, to use the unit in each of its two basic arrangements since circumstances at the time of the disaster will dictate its most efficient use. If, in the actual post-disaster situation, the PDH is not required for either purpose, the parent hospital staff and community leaders should be prepared to put it to other uses to meet local disaster needs. It may, under certain contingencies, be the only available source of general medical supply backup to service several medical care activities. In situations where radiation levels permit, and in major natural disasters, it may be used to establish or supply emergency treatment stations. The community Emergency Health Service Plan* should detail all operational and manpower requirements.

*Covered in "Community Emergency Health Preparedness," PHS
Pub. No. 1071-A-2.

Each hospital that now has a PDH is responsible for making adequate preparations to use the unit in disaster. A community hospital which is considering the acquisition of a PDH should be fully aware of the responsibility that goes with it and, before accepting the unit, should be agreeable to making the necessary preparations in cooperation with other community agencies.

The essential elements of preparation are:

1. Writing an operating plan
2. Integrating the PDH plan into the overall community Emergency Health Service Plan
3. Predesignating (in cooperation with the operationally affiliated parent hospital and civil defense officials) a suitable building for the operating site if the PDH is to function apart from its assigned parent hospital
4. Identifying key staff
5. Assigning personnel to set up and operate the PDH
6. Training assigned personnel
7. Arranging for resupply of expendable items from community sources
8. Providing for or expanding necessary supporting goods and services, including food and food service, water, fuel, laundry, radiation monitoring, traffic control, transportation, and communications
9. Revising and modifying PDH operating plan annually
10. Inspecting and rotating PDH components.

A motion picture, "Hospitals for Disaster," produced by the Public Health Service, Division of Health Mobilization and available on loan from State health departments, dramatically portrays the above points. The film serves as a good introduction to the PDH program.

NOTE: In addition to PDH's, Hospital Reserve Disaster Inventories are furnished to hospitals before a disaster by the Public Health Service's Division of Health Mobilization to increase the nation's hospital disaster preparedness. This inventory is a 30-day backup supply (based on 50, 100, and 200-bed increments) of pharmaceuticals, surgical supplies and equipments, dressings and other textile products for use in disaster. This reserve stock unit is available to hospitals with or without a PDH.

V. CHECK LIST

The following check list deals primarily with the planning and preparation necessary at the community level to use a PDH as a separate facility affiliated with the parent hospital and operated for an extended period of time as an adjunct to the permanent hospital. Questions answered "no" indicate the community is not yet properly prepared in that area. When all questions are answered "yes" the community has achieved a workable utilization plan.

Yes No

A. Community Hospital Affiliation

- | | | |
|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | 1. Has the PDH been affiliated with a hospital
in the community? |
| <input type="checkbox"/> | <input type="checkbox"/> | 2. Has the utilization of the PDH been incorporated
into the existing disaster plan for this hospital? |
| <input type="checkbox"/> | <input type="checkbox"/> | 3. Have the key personnel of the hospital accepted
responsibility for assisting in the predisaster
planning and for operating the PDH in time of
disaster? |
| <input type="checkbox"/> | <input type="checkbox"/> | 4. Have plans been made to incorporate the PDH
into its assigned hospital and to operate the
PDH as a complete unit in a separate build-
ing as an adjunct to the parent hospital? |

B. Written Plan

- | | | |
|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | 1. Is there a detailed written operating plan for
the PDH? |
| <input type="checkbox"/> | <input type="checkbox"/> | 2. Is the plan available to those who have emergency
assignments? |
| <input type="checkbox"/> | <input type="checkbox"/> | 3. Has a copy been filed with the local public health
and civil defense offices? |
| <input type="checkbox"/> | <input type="checkbox"/> | 4. Has a copy been sent to State health and civil
defense offices? |

Yes

No

C. Operation Site

☐☐

1. Has a building been designated as the operating site?

☐☐

2. Has its availability been officially confirmed in writing?

☐☐

3. Has an alternate operating site been selected?

☐☐

4. Have arrangements been made for moving the PDH from storage to the planned operating site?

☐☐

5. Have arrangements been made for helpers (labor) to load, unload and set up the PDH?

☐☐

6. Is there a floor plan of the proposed operating site? (15,000 usable sq. ft. required)

☐☐

7. Does the floor plan delineate the following functional areas of the PDH? (See suggested floor plans, Attachments 1 and 2)

☐☐

a. Receiving and Sorting

☐☐

b. Operating Rooms

☐☐

c. Wards

☐☐

d. Pharmacy

☐☐

e. Clinical Laboratory

☐☐

f. Central Sterile Supply

☐☐

(1) Is location of this section isolated from the operating rooms?

Yes

No

☐☐

g. General Stores

☐☐

h. Administration

☐☐

i. Generator

☐☐

(1) If an outside location is not possible, are provisions made for ventilating the exhaust of the generator?

☐☐

j. X-ray

☐☐

(1) Are provisions made for shielding staff and patients?

☐☐

k. Water Tank and Pump

☐☐

l. Morgue

D. Staffing

☐☐

1. Have personnel of the parent hospital been given assignments and responsibilities for PDH operation?

☐☐

2. Certain key positions are essential. Have the following key individuals been assigned to the PDH?

☐☐

a. Chief of Staff

☐☐

b. Hospital Administrator

☐☐

c. Chief of Receiving and Sorting (Surgeon)

☐☐

d. Director of Nursing

☐☐

e. Chief Building Engineer

Yes

No

☐☐

3. Have alternates been assigned for each of the above positions?

☐☐

4. Has it been determined that assigned personnel do not have conflicting assignments?

☐☐

5. Has a channel of authority (chain of command) been established for the PDH staff?

E. Training

☐☐

1. Including those assigned from nearby community hospitals, have the key personnel for setting up and operating the PDH been oriented and then trained in their emergency duties?

☐☐

2. To orient the staff, have PDH visual aids been used?

☐☐

3. Have practice and training exercises been held at the operating site to determine the adequacy of space and other arrangements?

☐☐

4. Has a PDH training unit been made available?

☐☐

5. Were orientation, familiarization, or practice sessions with the PDH components provided for assigned personnel?

☐☐

6. Have assigned personnel received copies of the Health Mobilization Series publications appropriate to their assignments? (See Attachment 5)

Yes

No

F. Supporting Goods and Services (See Attachment 3)

☐☐

1. Have necessary arrangements been made with civil defense and other community organizations for the following essential supporting goods and services?

☐☐

a. Food and food service

☐☐

b. Laundry service

☐☐

c. Communications equipment and services

☐☐

d. Auxiliary water source and delivery to site

☐☐

e. Radiological monitoring equipment and operators

☐☐

f. Transportation services

☐☐

g. Traffic control and security services

☐☐

h. Cable, sockets, and other electrical supplies (limited supply included in the PDH)

☐☐

i. Fuel and oil for equipment (See Attachment 4)

☐☐

j. Fuel for space and water heating

☐☐

k. Hand tools for opening crates and assembling equipment.

☐☐

l. Desks, tables, chairs and other furniture

☐☐

m. Maintenance and housekeeping supplies

☐☐

n. Billeting for staff

☐☐

o. Expedient refuse and sewage disposal

☐☐

p. Internal fire protection devices

Yes

No

☐☐

q. Mortuary services

☐☐

2. Have arrangements been made with civil defense and other community agencies for providing necessary augmentation and replenishment of supplies for the PDH, including:

☐☐

a. Supply of narcotics

b. Medical supplies to replenish expendable PDH supplies:

☐☐

(1) from local sources

☐☐

(2) from State and outside sources

G. Other Considerations

☐☐

1. Have provisions been made for radiological monitoring and decontamination (if necessary) of patients admitted to the PDH?

☐☐

2. Have procedures been established for connecting generators with the existing electrical system of the building selected as the PDH operating site?

☐☐

a. Have the wiring and electrical distribution system and plumbing system in the selected site been reviewed to determine requirements for operation of the PDH?

Yes

No

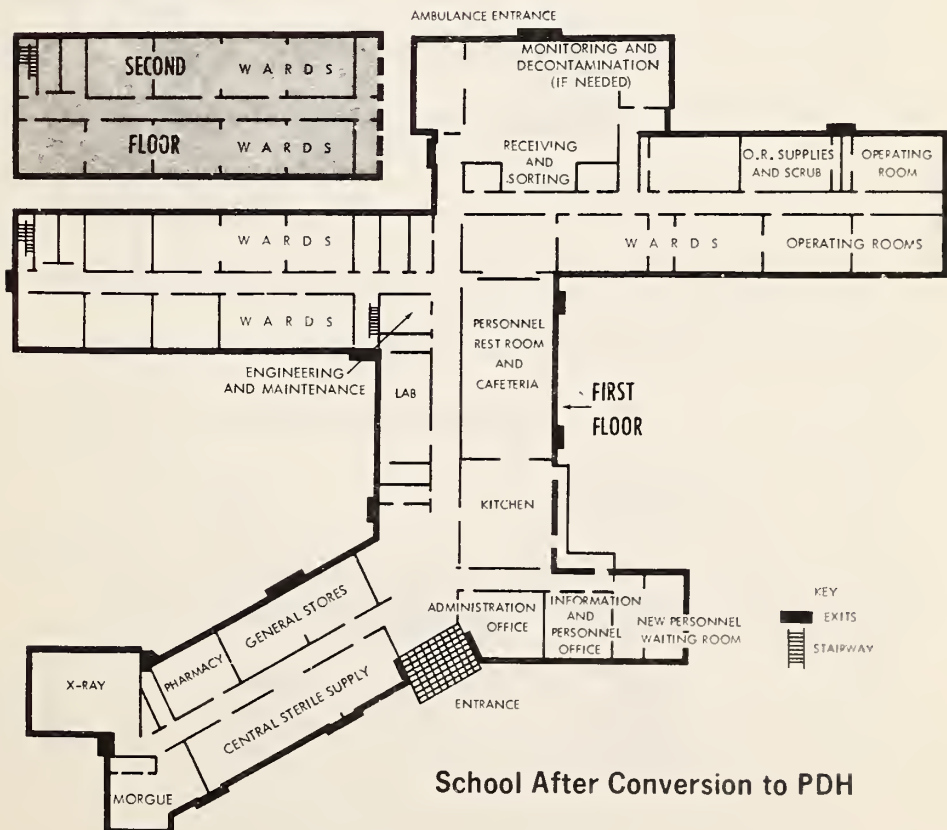
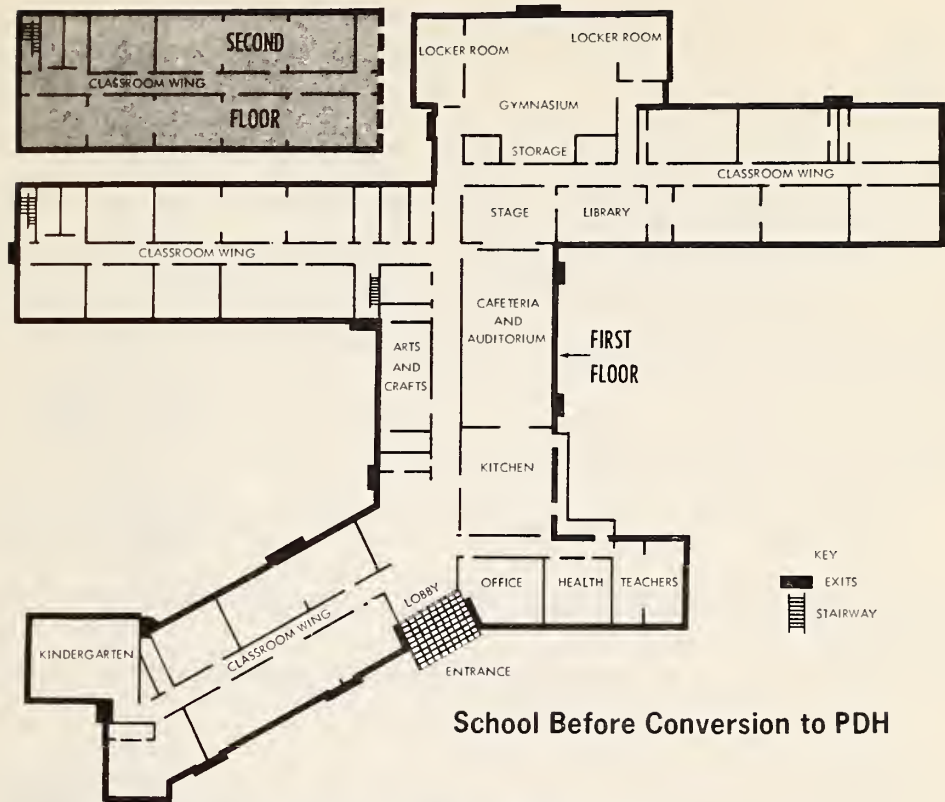
☐☐

b. Have plans been made for acquisition of
liquified petroleum plus tubing and adapters
for single burner L.P. gas stoves?

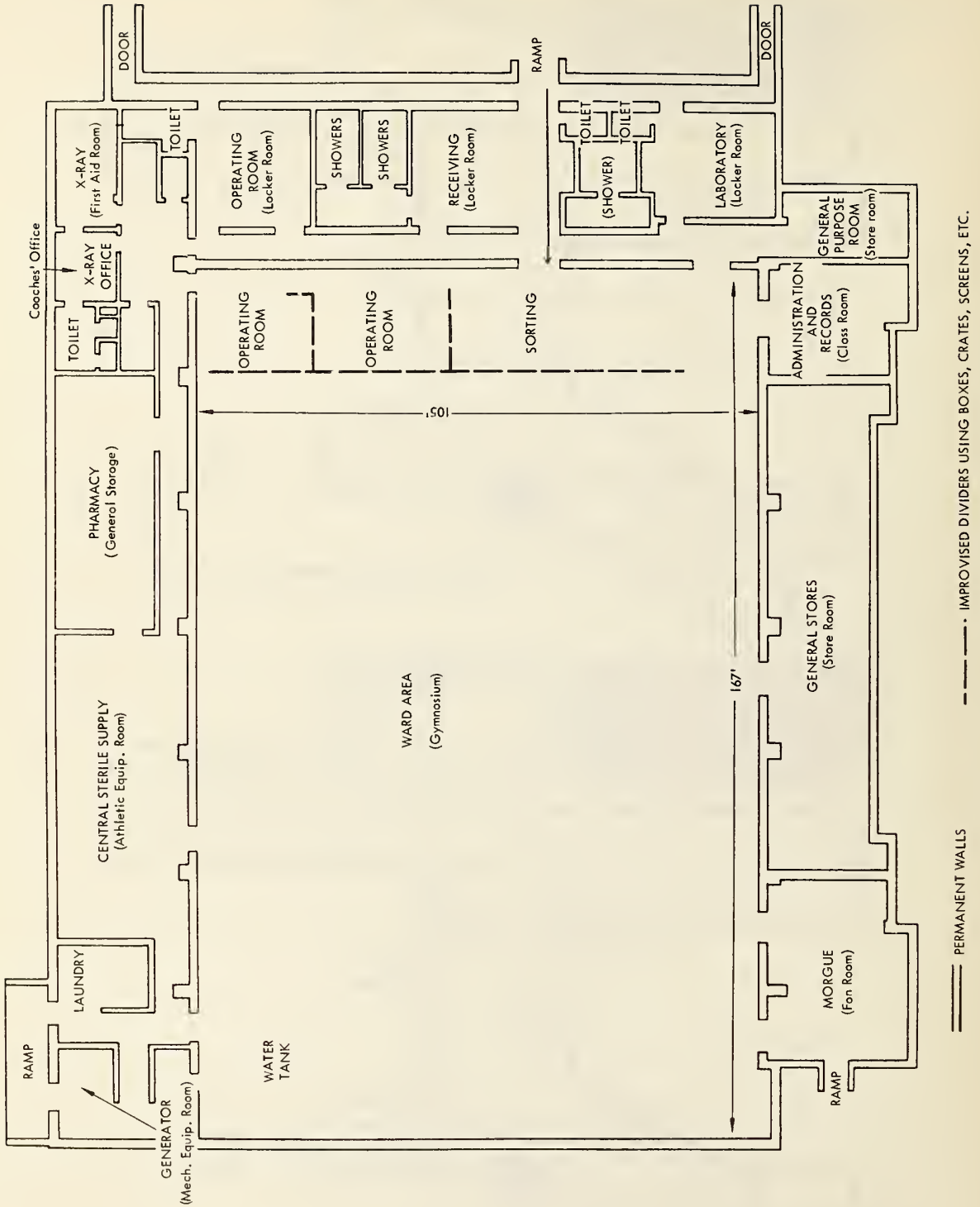
☐☐

3. Have quantities of forms, not included in the
PDH (supply forms, patient disposition log,
message forms, etc.), been provided by the
community or State? (See Attachment 4 for
forms supplied with the PDH)

ATTACHMENT 1



ATTACHMENT 2



PDH Set Up in a High School Gymnasium Area

ATTACHMENT 3

Supporting Goods and Services Required for Operation of PDH

1. Food

1500 meals per day (approximately 300 staff, plus 200 patients, times 3). Minimum food requirements should be in the range of 1500-1800 calories per patient per day, and 2000-2500 calories per staff member per day.

2. Billeting of Staff

Sleeping accommodations for 150-300 persons, depending on whether or not beds are reused in shifts.

3. Potable Water

2000-3000 gallons per day minimum for overall hospital requirements, excluding major laundry services.

4. Fuel and antifreeze

50-75 gallons of gasoline (any type) per day for operation of generators, sterilizers, and lanterns and liquified petroleum gas for small stoves. Oil and antifreeze for generators as follows:

	<u>Oil</u>	<u>Antifreeze</u>
	SAE 10W - 30 (or other appropriate weight)	Permanent Type
15 KW	6 qts.	7 qts.
10 KW	6 qts.	None
2.5 KW	1 qt.	None

5. Fuel for Space Heating and Water

Should be estimated from actual operating records of preselected site, if available, since fuel requirements vary depending on size and type of building, season and geographic location. A factor of 10 gallons of fuel oil (or 150 pounds of coal) per 1000 square feet per day can be used as a norm if experience records are not available.

6. Laundry Services

1500-2000 pounds of laundry per day for operation. (Water requirements about one gallon per pound minimum).

7. Manpower

150-200 man-hours of labor required to set up PDH depending upon accessibility of space, previous training and experienced leadership. Clerks, messengers, untrained aides, and laborers to be obtained by prearrangement with local office of State Employment Service.

8. Refuse Disposal (non-sewage)

Approximately 1300-1400 pounds per day

9. Narcotics

Approximately 5,000 doses (morphine sulfate 1/4 grain or therapeutic equivalent).

10. Fire Protection

The operating site should have adequate fire extinguishers and the personnel should know their locations. One should be available in or near each operating room, the sterile supply section, and the clinical laboratory, sections where flammable items and open flames are used. Other fire extinguishers should be readily available throughout the hospital.

11. Maintenance and Housekeeping Supplies

PDH's contain the following: brooms, mops, detergent, insecticide, garbage cans (32-gal. size) and metal pails (14-qt. size).

ATTACHMENT 4

FORMS SUPPLIED WITH THE PDH

<u>Item</u>	<u>Quantity</u>
Emergency Hospital Clinical Record	750
Emergency Hospital Clinical Record Jacket	750
Index & Information Card	750
Radiographic Request & Report Form	1000
Laboratory Urinalysis Request and Report Form	1000
Laboratory Hematology Test or Examination Form	1000
Laboratory Miscellaneous Test or Examination Form	500

ATTACHMENT 5

HEALTH MOBILIZATION SERIES PUBLICATIONS

The following publications will be of particular use to communities preparing a PDH Readiness Plan. Limited quantities of these publications may be obtained free of charge from Public Health Service, the Division of Health Mobilization, Washington, D.C. 20201. Large orders will be processed by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

- A-1 Emergency Health Preparedness Publications Catalog
- A-2 Community Emergency Health Preparedness
- A-3 Emergency Health Service Preparedness Check List
- C-1 Therapeutic Guide for Pharmaceuticals in the Packaged
Disaster Hospital
- D-6 The Packaged Disaster Hospital-Improved Mass Casualty Care
(Supported by lecture guides and 35mm. slides).
- F-1 Establishing the Packaged Disaster Hospital
- F-2 X-ray Section of the Packaged Disaster Hospital
- F-3 Central Sterile Supply Section of the Packaged Disaster
Hospital
- F-4 Laboratory Section of the Packaged Disaster Hospital
- F-5 Operation of Generators in the Civil Defense Emergency
Hospital*

*Packaged Disaster Hospitals were formerly called Civil Defense Emergency Hospitals. When this publication is reprinted this title will reflect the name change.

- F-6 Water Supply Management in the Packaged Disaster Hospital
- F-7 Storage Structures Erected for Pre-positioned Civil Defense
Emergency Hospitals
- F-10 Custodian's Handbook
- F-11 Series 62000 Packaged Disaster Hospital - Component Listing
and Storage Data
- F-12 Nurses' Ward Management Guide for the Packaged Disaster
Hospital
- F-13 Pharmacy Section of the Packaged Disaster Hospital
- F-14 Assembling Equipment in the Packaged Disaster Hospital
- F-15 Illustrated Catalog and Guide for Distribution of Packaged
Disaster Hospital Materials
- F-15-A Illustrated Catalog and Guide for Distribution of Packaged
Disaster Hospital Materials
- G-1 Hospital Planning for National Disaster
- G-2 Preparing the Hospital Plant for Emergencies

Suggested References for Physicians

The Treatment of Mass Civilian Casualties in a National Emergency,
Medical Education for National Defense (supported by lecture guides
and 35mm slides), Emergency War Surgery, U.S. Department of
Defense, 1958

PDH OPERATION PLAN FACT SHEET

PDH Identification No. _____ Town _____ State _____

Location of PDH operating site _____

Availability of site officially confirmed by: _____

Location of alternate operating site, if one is designated _____

Who is responsible for moving the PDH from storage to operating site? _____

Number of helpers provided for loading, unloading and setting up the PDH _____

Who has the primary responsibility for unpacking and setting up the PDH? _____

Key Staff Assigned for PDH Operation: Name

Principal Alternate

Chief of Staff _____

Hospital Administrator _____

Chief of Receiving & Sorting _____

Director of Nursing _____

Chief Building Engineer _____

REMARKS: _____

By formal agreement the following services will be provided by:

Food and Food Service _____

Fuel _____

Laundry _____

Communications _____

Auxiliary Water _____

Radiation Monitoring _____

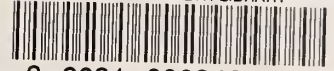
Transportation _____

Traffic Control & _____

Security _____

Mortuary Service _____

Others _____



Publications in the Health Mobilization Series are keyed by the following subject categories:

A-Emergency Health Service Planning

B-Environmental Health

C-Medical Care and Treatment

D-Training

E-Health Resources Evaluation

F-Packaged Disaster Hospitals

G-Health Facilities

H-Supplies and Equipment

I-Health Manpower

J-Public Water Supply



